

EXTRA PRACTICE 34**Multiplying and Simplifying with Radical Expressions****Use after Section 9.2****Name** _____

Example: Multiply and simplify. Assume all expressions in radicands are nonnegative.

$$\sqrt{10x^3}\sqrt{2x^2} = \sqrt{20x^5} = \sqrt{4x^4 \cdot 5x} = \sqrt{4}\sqrt{x^4}\sqrt{5x} = 2x^2\sqrt{5x}$$

Multiply and simplify.

1. $\sqrt{6}\sqrt{15}$ _____

2. $\sqrt{13}\sqrt{13}$ _____

3. $\sqrt{5}\sqrt{125}$ _____

4. $\sqrt{36}\sqrt{18}$ _____

5. $\sqrt{8x}\sqrt{12y}$ _____

6. $\sqrt{12}\sqrt{12x}$ _____

7. $\sqrt{7a}\sqrt{14a}$ _____

8. $\sqrt{8a}\sqrt{9b}$ _____

9. $\sqrt{10x}\sqrt{10x}$ _____

10. $\sqrt{ab}\sqrt{ad}$ _____

11. $\sqrt{3x}\sqrt{27x^4}$ _____

12. $\sqrt{12m^4}\sqrt{6m^3}$ _____

13. $\sqrt{x^2y^4}\sqrt{xy^2}$ _____

14. $\sqrt{x^3y^3}\sqrt{x^2y}$ _____

15. $\sqrt{10ab}\sqrt{25a^2b^3}$ _____

16. $\sqrt{18y}\sqrt{15y}$ _____

17. $\sqrt{5x^2}\sqrt{15x^4}$ _____

18. $\sqrt{3xy}\sqrt{12x}$ _____

19. $\sqrt{21y}\sqrt{7y^2}$ _____

20. $\sqrt{25}\sqrt{25y}$ _____